From: Tom Gordon
To: Microsoft ATR
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Subject: Microsoft Settlement

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Thanks

Tom Gordon

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Re: Microsoft Settlement

I have been following the Microsoft case for the last number of years, and the proposed settlement disturbs me. Not in the matter that it's to easy on Microsoft, but that it is way too harsh. I have been sickened at the gross waste of money and court time in the proceedings in this case.

I have developed software using Microsoft technology since the early 80's. Their technologies have matured and improved over those years not by strong arm tactics, but by the intelligent application of technology by smart people. The current proposed settlement puts a ball and chain on the operations of that company, which will likely diminish its ability to improve and develop new technologies, ultimately reducing or preventing new, innovative technologies from reaching consumers.

1. Regarding Section III items D and E of the settlement

For one to even hint that Microsoft hides secret technologies from competitors in order to make their applications more efficient is merely competitive jealousy. Of course competitors are not going to say nice things about their chief rival. When I was actively developing software, Microsoft was more than helpful in showing how to make it more efficient and effective. Their staff and support people worked directly with me and my staff to help make our systems better. They continue to openly and frequently train outside developers at multi-day knowledge transfer events all over the world. They reveal the low level intricacies of how their systems function, and how to capitalize on them. Microsoft trains all comers on how to write software to work with their systems! This is done in order to help people write better, more innovative software.

Who ultimately defines middleware? Are the government and the courts now in the business of software and operating systems design? Are we going to allow the government to micro-manage the development of products in our economy? This is not what capitalism is about

Why does Microsoft develop such good software? The answer is simple. Their staff has been writing Windows applications for many years. Experience counts when writing complex software. When Windows 3.0 was released, I asked my WordPerfect sales rep if they were going upgrade their word processing system from DOS so it would work on the new operating system (OS). They indicated they would wait to see if the Windows

3.0 would work out, and that it would only take 6 months to convert their word processor to work on it. Several years later, when the conversion was completed, their word processor was slow, clumsy and a miserable failure (in my opinion). I tried it, erased it, and went back to the old DOS version. When Microsoft came out with Word for Windows, it worked well, and I left it on my machine. As an experienced Windows developer, I knew WordPerfect's problem was in the architecture and design of the product. It was impossible to efficiently change their product from DOS to Windows without a significant architectural modification. Microsoft's software engineers knew Windows, since they had been writing Windows application code for years. WordPerfect's engineers had not, and faced a steep learning curve.

It takes 2-3 years of writing Windows code to become truly proficient. Tailoring applications to work with modern operating systems is an extremely complex task. The problem is not in what Microsoft tells other developers, it is in the level of experience of their development staff.

The concept that Microsoft should reveal 'secret' application interfaces to their operating systems (OS) to help competitors write more efficient code is technically dangerous. I shudder at the thought of any operating system or 'middleware' manufacturer having to reveal the internal systems calls to developers. The result is that when the next version of the OS is released, the internal call might have changed by the OS vendor in order to implement new features, and any application code dependent upon that function call would likely fail. Some will say that the internal OS function calls should not be changed since it would be detrimental to the applications using it, but that's a fallacy, since ALL operating systems have internal function calls that may need to change as the operating system matures and grows. Microsoft has published, and continues to publish huge volumes of internal technical documentation on how to write systems to interact with their software. The books used to be small, but now can't even be contained on one CDROM! Their systems also have 'undocumented' calls, many of which are documented in external publications by other authors, but not condoned by Microsoft. These 'undocumented' calls are for internal operating system use, and can change from version to version of their systems out of necessity. These undocumented calls are used by developers at their own risk. Some choose to use them, but others study how they work and figure ways to leverage what they learned. For Microsoft to officially publish undocumented calls is fraught with risk.

Such a publication of the 'undocumented' interfaces ties the hands of Microsoft, making it almost impossible to evolve their operating systems. They will not be able to change them since competitors will be dependent upon them for their systems. When the operating system cannot evolve, technology cannot evolve, and the ultimate consumer loses.

Revelation of internal system calls also creates a severe testing and stability problem of software platforms. If you cannot depend on applications and 'middleware' software (written using the internal OS interfaces) to run from one version to the next of an operating system, the testing burden on industry (those using the software in a

commercial environment) and consumers becomes huge. Such testing is necessary to insure stable migration from one version of a system to the next. Without it, corporate information networks could fail, and security could be compromised. With an increased testing burden, new products won't be implemented rapidly (or at all), and industry as a whole suffers. Developers will not write software to run on platforms that haven't been implemented by their clients.

Many competitors of Microsoft would love to see the internal system function calls documented, since it would ultimately stop the evolution of Windows. Would this be in the best interest of the consumer?

I am not convinced that the language of the agreement is adequate to prevent some software developers from tying the hands of Microsoft, preventing it from improving the operating system due to some specific function call that needs to change. This would be an unnecessary and onerous form of punishment – preventing any evolution of the operating system.

2. Regarding Section III C

One of the amazing things about the Windows platform, from a development perspective, is that you can depend on certain services and, what appears to be called 'middleware', being available for you applications to run. If OEM's and others are allowed to remove portions of Windows in order to customize it to their liking, this will make development of software much more difficult, as one will not be able to depend upon the consistency of the platform.

Although there is apparently some language in the agreement to help alleviate this problem, from the development standpoint, the potential instability is disconcerting. Applications will have to be written to the lowest common denominator of technology, making them less attractive to consumers, and less useful.

3. Oversight (Section IV B and C)

In the settlement, there is a section regarding oversight of Microsoft's operations by a group of individuals (The 'TC'), and a Compliance Officer.

Isn't this almost the same thing that just about killed IBM? Economies are no longer national, they are global. To use a group of people to oversee the functions of Microsoft will stifle their ability to develop new systems, ultimately limiting technologies to the consumer. We are in a world economy. Many nations would love to see the demise of Microsoft, so they could take over technical leadership in software. If this is the case, it's not unforeseeable that the United States will ultimately be importing billions of dollars of software from other countries, instead of exporting it.

4. Other issues discussed by individuals (and States) objecting to the settlement:

Monopoly Profits

I find it very difficult, if not impossible, to find where, in any law, it's illegal to optimize profit. It has been taught in business schools from coast to coast for ages. For Microsoft to be admonished for making a profit digs at the heart of capitalism, that is, if the United States still works on a capitalistic economy. Microsoft 'bet the company' on Windows in the 80's and early 90's, and now some say they should be prevented from making a profit. How is this appropriate, fair or even legal? What precedent does this set? If you are innovative, should you move to another country that will let you make a profit? If you make a large financial gamble, you cannot receive gain commensurate with the risk involved?

Microsoft not only competed with other operating systems, but with their own previous versions of Windows and 'free' operating systems software. If Windows was priced too high, people would not adopt it. Customers chose to buy new versions due to a wealth of new features. Restricting those features would kill the market for operating systems.

Microsoft as an 'illegal, abusive monopoly'....

I realize this has been argued and 'decided' by the courts (and the politicians and the press). It's quite apparent that if define a market narrowly enough, you can create a monopoly out of thin air. In a dynamic, well defined market, there is absolutely no such thing as a monopoly. In the case of the personal computer, if one company is making 'monopoly profits' (in the economic sense, price above the equilibrium price) selling the devices, another company will figure a way to do the same thing, with another type of device, better start making 'monopoly profits' of their own. This is the heart of capitalism. All companies that make a profit make 'monopoly profits.' A competing product may not physically resemble the original, but it meets the same consumer need. The personal computer has just about evolved into a commodity product, and may be relegated to the basement junk yard in 10 years. This occurs as new technologies take over the tasks older technologies have been handling. The market is too dynamic to define a small piece of the pie, and declare it as a monopoly marketplace. The environment and the market are constantly changing.

The only people who complain about a monopoly are the competitors. If there are competitors, then where is the monopoly? If the competitors have a better technology, then they will ultimately win, even if a market dominant firm tries to prevent it. This was appropriately demonstrated when Microsoft achieved a significant market position in small computer operating systems over the likes of IBM, DEC, Wang, Sun, Univac and others. The best and most cost effective system won many of those battles.

Release Microsoft Office On Other Platforms:

Some individuals have proposed that to make a 'level playing field', Microsoft should publish their Office software for other operating systems. If this were economically viable, wouldn't someone have already created software that does this? Changing code to run on another operating system is not in the slightest manner a simple task. It may be impossible. It is very much like trying to attach wings to an automobile and calling it an airplane. The fundamental structural concepts between operating systems are usually significantly different, and interchanging applications between them is not a quick, or an easy task. When a feature cannot be implemented on another operating system due to some architectural differences, how do you resolve this?

Release a Stripped Down Version of Windows:

Some have proposed Microsoft develop a 'stripped down' version of Windows that others could enhance. Although interesting from a technical and academic standpoint, this would potentially perpetuate multiple non-compatible systems that could kill the applications software industry.

Back when the IBM PC was young, there 3 or 4 different operating systems available (UCSD P-System, CPM-86, MSDOS/ PCDOS and a few others.) They were anything but compatible. Once the MSDOS/PCDOS system became prevalent, the industry flourished. Before that, developers had to pick their target operating system, and ignore the others, as they worked differently. This severely hampered the growth of the PC industry.

Releasing the Windows Source Code:

Giving away what Microsoft has spent many billions to develop would be tantamount to capital punishment and confiscation. Competitors would love the confiscation of others' private property, but the precedent in our economy would be devastating. No company would ever again be safe from the government taking private property without just compensation, plus the government would be in the situation of picking winners. If another company created something better, and started to obtain a large market share, would the government be obligated to clip their wings to favor the pre-determined winner?

Requiring Microsoft to include competitor's products in Windows:

Who would decide what products to be included in Windows? Would the government now be involved with Operating System design? Wouldn't this open a Pandora's Box where everybody would want their software included on the Windows Disk (ultimately, becoming multiple disks)? If the other companies put their software on the Windows disks, who would be responsible for testing and support? Shouldn't Microsoft be compensated for including and distributing the wares of others? What happens when the additional code doesn't pass the necessary tests to be included? Microsoft has 2 testers for every 1 developer in the operating systems group, and that still doesn't produce code

that is 100% bug free. Will other companies insure their code is tested to that level? Adding more pieces to the equation increases the testing load exponentially.

Insure Microsoft continues to fully support 'industry standards':

Who defines the 'industry standards?' Again, are the government and the courts going to become involved with operating system design? Are we to have 'official' operating system standards and a government agency that makes certain standards official? What does that do to competition and consumer choice?

Final Comments:

Yes, there were likely some individuals at Microsoft that may have become over-zealous in their marketing areas. That's part of the drive for success within individual product groups. The technology industry is a fierce competitive environment; one has to fight for market share and consumer dollars. To severely punish the entire company for some minor infractions, to ultimately reduce future consumer choice and to confiscate the property of shareholders is tantamount to sentencing a parking offender to capital punishment.

Thanks for bearing with my comments.
I'm not a lawyer (which is obvious), but one who has worked in the personal computer industry since its inception, and one who is very concerned about the long term implications of this case on the technology market, and the economy.

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